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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

ROSSI, JESSICA

ART UNIT

PAPER NUMBER

1733

DATE MAILED: 04/01/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

09/622,044

Applicant(s)

BORDEAUX ET AL. *g*

Examiner

Jessica L. Rossi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 February 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-22 and 26-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-22 and 26-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☒ Interview Summary (PTO-413) Paper No(s). 14.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 13. 6) ☐ Other: .

DETAILED ACTION

Response to Amendment

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn. It is noted that Applicants amended claim 12 by incorporating the limitations from dependent claims 23-25.

2. The rejection of claims 12-18, 24, 26-27, and 28-29 under 35 U.S.C. 102(b) as being anticipated by Mattimoe et al. (of record), as set forth in the previous office action, has been withdrawn in light of Applicants' arguments.

3. The rejection of claims 13-14 under 35 U.S.C. 103(a) as being unpatentable over Mattimoe et al., as set forth in the previous office action, has been withdrawn in light of Applicant's arguments.

Specification

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or

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REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a).

"Microfiche Appendices" were accepted by the Office until March 1, 2001.)

(e) BACKGROUND OF THE INVENTION.

(1) Field of the Invention.

(2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.

(f) BRIEF SUMMARY OF THE INVENTION.

(g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).

(h) DETAILED DESCRIPTION OF THE INVENTION.

(i) CLAIM OR CLAIMS (commencing on a separate sheet).

(j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).

(k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 12-19 and 26-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukawa et al. (US 4910074) in view of Cairns (US 3425176).

Applicants' invention is directed to making an automobile window glazing comprising two sheets of glass adhered together by an adhesive interlayer. The anti-laceration properties of the glazing are improved by tempering, preferably semi-tempering, the glass sheets and using an adhesive interlayer having a thickness greater than 0.76 mm (p. 5, 2nd paragraph; p. 3, 2nd paragraph).

With respect to claims 12 and 28-29, Fukawa, directed to making an anti-laceration automobile window glazing 7 (column 1, lines 6-15), teaches adhering glass sheets 5 with an adhesive interlayer 8 (Figures 5 and 11-14; column 2, lines 22-31; column 4, lines 42-45). The adhesive interlayer has a thickness of 0.78 mm and the glass sheets have a thickness of 2.3 mm

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(column 7, lines 30-32 and 55-58). The reference teaches tempering or semi-tempering the glass sheets prior to bonding (column 4, lines 46-49; claim 2); therefore, the skilled artisan would have appreciated that the glass sheets of Fukawa would have a core compressive stress in the central zone ranging from 20-50 MPa, because like the glass sheets of the present invention, the glass sheets of Fukawa are tempered or semi-tempered and have a thickness consistent with that of the claimed invention. The reference is silent as to the automobile window glazing being adapted to fit an automobile side window.

It is known in the art to make an anti-laceration automobile window glazing by tempering or semi-tempering two glass sheets and bonding them with an adhesive interlayer, where the window glazing can be used as a windshield, rear window, or **side window** for the automobile, as taught by Cairns (column 2, lines 36-38 and 41-52 and 58-65; column 3, lines 18-20). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the automobile window glazing of Fukawa as a side window for the automobile because it is known in the art to use the same glazing for several different window locations in an automobile, as taught by Cairns, where the use of an anti-laceration glazing in the side window would only serve to further protect the passengers.

Regarding claims 13-14, Fukawa teaches the glazing having anti-laceration properties in the non-intact state and the non-intact bent state (column 1, line 8; column 2, lines 46-47).

Regarding claim 15, Fukawa teaches the interlayer having a thickness not more than 2 mm.

Regarding claim 16, Fukawa teaches the interlayer having a thickness of not more than 1.9 mm.

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Regarding claim 17, Fukawa teaches the interlayer having a thickness of not more than 1.53 mm.

Regarding claim 18, Fukawa teaches the can be PVB or polyurethane (column 4, lines 5-43-44).

Regarding claim 19, Fukawa teaches thermoplastic polyurethane.

Regarding claim 26, Fukawa teaches the glazing comprising a functional layer (Figure 13; column 2, lines 25-26; column 5, lines 50-56).

Regarding claim 27, Fukawa teaches an outer face of the glazing 7 comprising a plastic sheet 1 (Figures 5 and 11-14; column 2, lines 23-24).

6. Claims 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukawa et al. and Cairns as applied to claim 18 above, and further in view of the Admitted Prior Art in the specification of the present application.

Regarding claims 20-22, Fukawa refers to PVB and polyurethane as examples of what the interlayer can be, but does not limit the interlayer to such materials (column 4, lines 42-44). Selection of a particular interlayer would have been within purview of the skilled artisan at the time the invention was made depending on the desired characteristics. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use other interlayers such as polyethylene in the form of an ionomer resin, where the ionomer resin is a (meth)acrylic acid and ethylene copolymer, or a thermoplastic polyester such as poly(ethylene terephthalate) because such is know in the art, as taught by the Admitted Prior Art (p. 2, 4th paragraph).

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7. Claims 12-19 and 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rieser et al. (US 3558415) in view of Cairns, or alternatively, Cairns in view of Rieser et al.

With respect to claims 12 and 28-29, Rieser, directed to making an anti-laceration automobile window glazing W, teaches adhering glass sheets 11, 12 with an adhesive interlayer 13 (Figure 2; column 1, lines 25-30; column 6, lines 25-30). The adhesive interlayer has a thickness of 0.03-0.06 in (0.76-1.52 mm), the glass sheet 11 has a thickness of 0.04-0.13 in (1.0-3.3 mm), and the glass sheet 12 has a thickness of 0.04-0.09 in (1.0-2.3 mm) (column 6, lines 47-53; column 5, lines 54-56 and 59-63 and 69-73; column 2, lines 29-33). The reference teaches tempering the glass sheets prior to bonding (column 2, lines 49-50; column 3, lines 3-8; column 6, lines 10-15 and 26-30); therefore, the skilled artisan would have appreciated that the glass sheets of Rieser would have a core compressive stress in the central zone ranging from 20-50 MPa, because like the glass sheets of the present invention, the glass sheets of Rieser are tempered and have a thickness consistent with that of the claimed invention. The reference is silent as to the automobile window glazing being adapted to fit an automobile side window.

Applicants are directed to paragraph 5 above for a complete discussion of the Cairns reference. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the automobile window glazing of Rieser as a side window for the automobile because it is known in the art to use the same glazing for several different window locations in an automobile, as taught by Cairns, where the use of an anti-laceration glazing in the side window would only serve to further protect the passengers.

motivation for \rightarrow Alternatively, it is noted that Cairns is silent as to the thickness of the interlayer and the thickness of each glass sheet. However, Rieser teaches using an interlayer having a thickness

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within a range consistent with that of the claimed invention, because a glazing comprising an interlayer having such a thickness has a better yield upon impact than prior art interlayers having a thickness outside this range (column 5, lines 54-58) and prior art interlayers having a thickness of 0.03 in (0.76 mm) tend to increase the possibility of “neck ruffle” (column 5, lines 69-73). Rieser also teaches using glass sheets having a thickness within a range consistent with that of the claimed invention, because a glazing comprising glass sheets having such a thickness has a much less harmful lacerative effect when fractured (column 5, lines 54-56).

Therefore, alternatively, it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the anti-lacerative side window glazing of Cairns using an adhesive and glass sheets having a thickness within the ranges disclosed by Rieser because this would result in the anti-lacerative benefits disclosed by Rieser and mentioned in the preceding paragraph.

Regarding claims 13-14, Rieser teaches the glazing having anti-laceration properties in the non-intact state and the non-intact bent state (column 7, lines 30-31).

Regarding claim 15, Rieser teaches the interlayer having a thickness not more than 2 mm.

Regarding claim 16, Rieser teaches the interlayer having a thickness of not more than 1.9 mm.

Regarding claim 17, Rieser teaches the interlayer having a thickness of not more than 1.53 mm.

Regarding claim 18, Rieser teaches the can be PVB or polyurethane (column 1, lines 35-41; column 6, lines 29-30).

Regarding claim 19, Rieser teaches thermoplastic polyurethane.

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8. Claims 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rieser et al. and Cairns, or alternatively, Cairns and Rieser et al. as applied to claim 18 above, and further in view of the Admitted Prior Art.

Regarding claims 20-22, selection of a particular interlayer would have been within purview of the skilled artisan at the time the invention was made depending on the desired characteristics. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use other interlayers such as polyethylene in the form of an ionomer resin, where the ionomer resin is a (meth)acrylic acid and ethylene copolymer, or a thermoplastic polyester such as poly(ethylene terephthalate) because such is known in the art, as taught by the Admitted Prior Art (p. 2, 4th paragraph).

9. Claims 26-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rieser et al. and Cairns, or alternatively, Cairns and Rieser et al. as applied to claim 12 above, and further in view of Fukawa et al.

Regarding claim 26, Rieser is silent as to the glazing comprising at least one functional layer. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the glazing of Rieser comprise at least one functional layer because such is known in the art, as taught by Fukawa (Figure 13; column 2, lines 25-26; column 5, lines 50-56), and this enhances the aesthetics of the glazing (column 5, lines 50-55).

Regarding claim 27, Rieser is silent as to the glazing having a plastic sheet on one of its outer faces. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a plastic sheet on one of the outer faces of the glazing of Rieser

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because such is known in the art, as taught by Fukawa (Figures 5 and 11-14; column 2, lines 23-24), and this allows the properties of the glazing to be manipulated.

Response to Arguments

10. Applicant's arguments with respect to claim 12 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Jessica L. Rossi** whose telephone number is **703-305-5419**. The examiner can normally be reached on M-F (8:00-5:30) First Friday Off.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael W. Ball can be reached on 703-308-2058. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Jessica L. Rossi
Patent Examiner
Art Unit 1733



jl
March 26, 2003



Michael W. Ball
Supervisory Patent Examiner
Technology Center 1700